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Benefits of Fish Outweigh Mercury Risk

Study: Fish Warnings May Do More Harm Than Good

By Daniel DeNoon Reviewed By Louise Chang, MD
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Oct. 19, 2005 -- Have you cut back on eating fish because of mercury warnings? If you have, a panel of risk-assessment experts says you're shooting yourself in the foot.

Mercury -- environmental methyl mercury -- does, indeed, accumulate in fish. Methyl mercury is toxic, especially to the brains of fetuses and young children. That's bad.

On the other hand, fish is full of omega-3 fatty acids. These vital nutrients cut your risk of heart disease and stroke and aid children's early cognitive development. That's good.

Does what's bad about fish outweigh what's good about it? Not at all, the expert panel reports in a series of five articles in the November issue of the *American Journal of Preventive Medicine*. Harvard researcher Joshua T. Cohen, PhD, is among the authors of the report.

"If you are not going to become pregnant, you should eat fish. Mercury is not an issue for you," Cohen tells WebMD. "If you are thinking of becoming or are pregnant, omega-3 fatty acids are important to your child, so stopping fish is not a good idea. But given that mercury is a neurotoxin, eating low-mercury fish is something to strive for."

Can that really be true? WebMD asked dietitian Leslie Bonci, MPH, RD, director of sports nutrition at the University of Pittsburgh Medical Center and nutritional advisor to the Pittsburgh Steelers and the Pittsburgh Ballet.

"This is about discriminating, not eliminating," Bonci tells WebMD. "The deal is, there are some fish you probably should not be consuming. But the goal isn't for pregnant women not to eat fish at all. The goal is to be smart. There are good things about fish, not just for the mom but for the baby as well. And the reality is very few fish present that big a risk."

According to the Department of Health and Human Services and the Environmental Protection Agency, there are only four kinds of fish to avoid because of high mercury levels: shark, king mackerel, swordfish, and tilefish. Albacore tuna and tuna steak should be limited to one serving per week. Light canned tuna, shrimp, salmon, pollock, and catfish are commonly eaten fish that are low in mercury.

Did Mercury Warnings Backfire?

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People obviously need to know about health risks. But Cohen and his distinguished panel say that public health messages can have an unintended effect. By warning about mercury in fish, the messages may discourage people from eating enough fish.

"An advisory is like a medication," Cohen says. "It has a therapeutic effect, but it also has side effects."

The experts calculate that if mercury warnings cause people who aren't pregnant to cut way back on fish consumption, deaths from heart disease and stroke would increase. Moreover, kids' IQ scores would decline. In fact, the experts calculate, getting people to eat *more* fish would be a greater overall benefit than getting pregnant women to avoid high-risk fish.

"Mercury is in the ocean. So in theory there is risk associated with fish consumption," Cohen says. "But the types of risk are not the frank poisoning events one might picture associated with mercury. We are talking about subtle effects not detectable at the level of the individual. That is because the amount of mercury people are exposed to in the U.S. is not very great."

For example, Cohen and colleagues calculate that if fish consumption went up among pregnant women in the U.S., the nation would suffer a total drop in IQ scores of 270,000 points -- less than one-tenth of a point per child born. By comparison, 40 IQ points separate a genius from an average person.

Bonci, too, worries that too much emphasis on risk crowds out messages about benefits.

"I think the red flags go up when people hear one word: mercury," she says. "People start to think, 'Just to be safe, I won't eat any fish at all.' Then there is a problem."

SOURCES: Cohen, J.T. *American Journal of Preventive Medicine*, November 2005; vol 29: pp 325-334. Teutsch, S.M. *American Journal of Preventive Medicine*, November 2005; vol 29: pp 324-325. Bouzan, C. *American Journal of Preventive Medicine*, November 2005; vol 29: pp 347-352. Cohen, J.T. *American Journal of Preventive Medicine*, November 2005; vol 29: pp 353-365. Cohen, J.T. *American Journal of Preventive Medicine*, November 2005; vol 29: pp 366-374. Willett, W.C. *American Journal of Preventive Medicine*, November 2005; vol 29: pp 320-321. McMichael, A.J. *American Journal of Preventive Medicine*, November 2005; vol 29: pp 322-323. König, A. *American Journal of Preventive Medicine*, November 2005; vol 29: pp 335-346. Department of Health and Human Services and the Environmental Protection Agency: "What You Need To Know about Mercury in Fish and Shellfish," March 2004; accessed from FDA web site Oct. 18, 2005. Joshua T. Cohen, PhD, senior research associate,

Harvard Center for Risk Analysis, Boston. Leslie Bonci, MPH, RD, director of sports nutrition, University of Pittsburgh Medical Center.
